

**CHEAT VERIFICATION SYSTEM AND METHOD FOR
A VIDEO GAMES SYSTEM**

This invention relates to video games systems, particularly the verification of cheats in video game systems.

A cheat is used to modify an existing video game with a view to changing the game play. A player can obtain a cheat from a cheatline which he can contact by telephone. The cheatline operator asks the player to select a cheat from a range of available options and provides the player with a cheat code for the cheat that he selects. The player inputs the cheat code to his video games console using a control pad or the like and the video games console then implements the cheat by adapting appropriate game parameters to effect the desired changes.

Usually, a cheatline will have been authorised by the publisher of the video game. However, it is also possible for a player to obtain cheats from unauthorised sources such as magazines which routinely publish cheat codes. This is undesirable because a cheat obtained in this way might not have been approved by the game publisher.

According to the invention there is provided a cheat verification system for enabling a video games console to implement a cheat for a video game, the cheat being

identifiable by identification data, the cheat verification system including, means for applying a predetermined process to said identification data to generate verification data, and verification software, stored in the video game, for enabling the video games console to implement said cheat in response to said verification data.

Embodiments of the invention are now described, by way of example only, with reference to the accompanying drawings of which:

Figure 1 is a block schematic representation of a cheat verification system according to the invention, and

Figure 2 is a schematic flow diagram illustrating one implementation of a cheat verification system according to the invention.

Figure 1 shows a video games console 1, a video game 2 which is to be played on the video games console 1 and a cheatline 3 at a remote location which can be contacted by a player over a telephone line 4. It will be understood that the term video games console is intended to include a personal computer on which a video game can be played.

A player can contact the cheatline 3 to request access to a cheat which will assist the

player in subsequent game play. In response to the request, the cheatline operator gives the player the appropriate cheat code which the player must input to the video games console 1 using a control pad or the like. The video games console 1 may then implement the cheat by modifying appropriate game parameters.

Usually, a cheatline operating in this manner will be controlled or authorised by the game publisher. However, as already described, it is also possible for a player to obtain cheat codes from sources that have not been authorised by the game publisher e.g. magazines, instead of contacting an authorised cheatline. This practice is undesirable because such sources might not have been approved by the game publisher.

As will now be described, a cheat verification system according to the present invention is intended to deny a video games console authority to implement cheats obtained from unauthorised sources.

To this end the cheat verification system includes verification software stored in the video game 2 and a cheatline processor 5 having a memory 6. Operation of a preferred implementation of the cheat verification system will now be described with reference to the flow diagram of Figure 2.

When a video game 2 is loaded into the video games console 1, the console 1 is initially booted (step 100) and the player is allocated authorisation data. In this

implementation of the cheat verification system the authorisation data allocated to the player consists of a bonus code which is displayed to the player by the video games console 1 on a bonus screen (step 101). In this example, the bonus code consists of a four digit number, giving 10^4 possible combinations, although bonus codes consisting of larger or smaller numbers than this could alternatively be used. The verification software stored in the video game causes the video games console 1 to save the bonus code to a memory card for future use (step 102). In a preferred implementation of the cheat verification system the bonus code is a number which is randomly generated by the video games console at the player's request. Alternatively, the bonus code could be a number that has been prestored in the video games console.

When the player contacts cheatline 3 over telephone line 4 the cheatline operator will ask the player for the four digit bonus code that has been allocated to him, and he will be required to select a cheat from a range of available options (step 103).

The game publisher allocates, in advance, different identification data that identify different player-selectable cheats. In this implementation of the invention, the identification data has the form of a two digit identity (ID) code. Thus, for example, a cheat requesting race cars to drive only in reverse might be allocated ID code "01", whereas a cheat providing turbo boost might be allocated ID code "02". These ID codes are prestored in memory 6 of processor 5 and are also made available to the video games console 1 by the verification software stored in the video game 2.

However, the ID codes are not made available to the player.

When the player selects a cheat from the options presented to him by the cheatline operator, processor 5 combines the four digit bonus code and the corresponding two digit ID code in such a way that the bonus code and the ID code can still be recognised (step 104). For example, if the four digit bonus code is [0000] and the two digit ID code is [01], the resultant combination code C might be [000001]. In this case, the first four digits of the combination code are the same as the bonus code and the last two digits of the combination code are the same as the ID code.

The processor 5 then encrypts the combination code C using a secret encryption algorithm to generate verification data which, in this embodiment, has the form of a six digit verification or unlock code V(I) (step 105). The verification code V(I) is given to the player (step 106), and because the encryption algorithm used to generate the verification code is secret the player is unable to discover the ID code corresponding to the cheat that has been selected.

The player is required to input the verification code V(I) to the video games console using a key pad or similar data entry device (step 107), and the verification software stored in the video game 2 causes the video games console 1 to decrypt the verification code V(I) using a complementary secret decryption algorithm to recover the combination code ([000001], in the above example) (step 108). The bonus code

formed by the first four digits of the combination code is then compared with the bonus code previously saved to the memory card (step 109), and provided that these codes are the same the video games console 1 is enabled by the verification software to implement the cheat corresponding to the ID code formed by the last two digits of the combination code (step 110).

If the two bonus codes are different, or the ID code formed by the last two digits of the combination code does not match one of the ID codes made available to the video games console 1 by the verification software, a cheat will not be implemented.

Because neither the encryption/decryption algorithms, nor the two digit ID codes are known to the player, it is impossible for the player independently to generate the verification code $V(I)$ which the player must input to the video games console before a cheat can be implemented. Therefore, the described cheat verification system ensures that the video games console 1 will only implement cheats that have been obtained from an authorised cheatline.

In an alternative implementation of the invention, the verification code $V(I)$ generated by cheatline processor 5 is input to the video games console 1 by the player together with information identifying the cheat that has been selected. The verification software stored in the video game 2 causes the video games console 1 to subject the player's bonus code (previously saved to memory card) and the two digit ID code

corresponding to the selected cheat to exactly the same processing as that carried out by processor 5 using the same secret encryption algorithm to generate a second six digit verification code V(II). The second six digit verification code V(II) is then compared with the six digit verification code V(I) generated by processor 5 and input to the video games console 1 by the player. Provided the compared verification codes V(I) and V(II) are the same, the video games console is enabled to implement the cheat; otherwise, the cheat cannot be implemented.

It will be appreciated that in an alternative embodiment the cheatline processor 5 could be directly connected to the video games console 1, via an Internet link, for example, enabling the player to exchange data using a key pad or similar data entry device.

It will also be appreciated that a cheat verification system of the kind described may be a source of revenue for the cheatline provider. More specifically, each time a connection is made using a telecommunications link the network operator levies a charge on the player and the cheatline operator may also receive a revenue stream.

It will be understood that whereas some of above-described processing is carried out by the cheatline processor 5, it is alternatively possible for all the processing to be carried out by the video games console 1 itself under the control of software, including the verification software, stored in the video game, although software instructions for

generating the verification code $V(I)$ could be obtained from a location remote from the video games console; for example, on-line from a remote website.